Introduction

Exploring global youth in digital trajectories

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Setting the stage: youth, globalization, and digital media

In 1996 (i.e., before the emergence of YouTube and Facebook and before mobile internet devices such as tablets and smartphones were widely available) Arjun Appadurai, in his seminal book *Modernity at Large: Cultural Dimensions of Globalization*, described how the world has become *interconnected* through the flow of capital, technologies, populations, media images, and ideas to an unprecedented extent. When so-called "new media" emerged, this development was intensified with the world becoming increasingly *hyperconnected*: global communication is nowadays taking place through interactive, fast, and mobile media that enable the distributed production and peer-to-peer circulation of advanced audio-visual designs and bits of information across the most different geographical areas.

These developments concern today's young people more than anybody else. In 2001, Marc Prensky was already arguing that due to digital technologies, a physiological transformation of the brain structure is taking place and that young "digital natives" think in different ways compared to older generations (2001a, 2001b). However simplified this position may be because of the single focus on generational differences (cf. Helsper & Eynon, 2010), much scholarship has explored the major influences of digital technologies on young people. Terms such as the Net generation (Tapscott, 2009), digital youth (Subrahmanyam & Šmahel, 2011), the app generation (Gardner & Davis, 2013), and networked teens (boyd, 2014) have been introduced in this context to describe a radical shift in the lives of the young in the "new media" era.

Another designation often employed in the same context is the term *global children* or *global youth* (de Block & Buckingham, 2007; Nilan & Feixa, 2006). Maintaining critical distance from Eurocentric and neoliberal understandings of "globalization" (cf. Andreotti, 2011; Kontopodis, 2012; McFarlane, 2009), we should acknowledge here that even if technology hyperconnects the most diverse and distant locations, it is discernibly unequally accessible and distributed across geographical areas (Apperley, 2010) and there are significant differences in media practices depending on the young people's gender, class, race, and socio-cultural and ethnic backgrounds (Brown & Davis, 2004; Walkerdine, 2007). Still, youths all around the globe seem to increasingly express themselves in public internet

forums (Buckingham & Willett, 2006), come of age in virtual social worlds (Boellstorff, 2008), make friends on social networking sites (de Haan & Pijpers, 2010; Livingstone, 2010), play games (Burn & Richards, 2014), and consume online (Buckingham & Tingstad, 2010).

Much research has also explored the role digital technologies may play globally with regard to young people's formal and informal education inside and outside of school, in virtual learning environments, and/or through mobile interfaces (Davies, Coleman & Livingstone, 2014; Pachler, Bachmair, Cook & Kress, 2010; Potter, 2012; Renninger & Shumar, 2002; Selwyn, 2013). Literacy in this context has been redefined as the capacity to participate in the processes of locating, creating, filtering, and/or reusing and remixing audio-visual and written material and web-design so as to be able to engage meaningfully, and if needed critically, with digital contents, whilst protecting oneself against unwanted exposure or offensive behavior. According to the white paper Confronting the Challenges of Participatory Culture (Jenkins, Clinton, Purushotma, Robison & Weigel, 2009), this set of skills can be described as new media literacies, or as scholars such as Andrew Burn (2009) and Dustin Summey (2013) propose, digital literacies, or simply new literacies (Lankshear & Knobel, 2011). Further advancing this scholarship with regard to newer and more complex interfaces and designs, Guy Merchant, Julia Gillen, Jackie Marsh, and Julia Davies (2012) have introduced the term virtual literacies while Cathy Burnett, Guy Merchant, Julia Davies and Jennifer Rowsell (2014) have explored the global dimension and responsibilities of literacy studies in the 21st century.

While the first wave of scholarship, referred to above, mostly explored *online* youth practices, a second wave of research argues that the boundaries between life *online* and life *offline* are increasingly blurred, to an extent that the original meanings of the words *online* and *offline* seem to be diffused, both in theory and in practice. Luciano Floridi (2014), for instance, has recently introduced the term *onlife* to account for the contemporary ways of living in which humans are endlessly surrounded by smart, responsive objects when they play, shop, learn, entertain themselves, and conduct relationships or even wars. At the same time, it seems that media scholars are moving from a focus on "new" media to exploring how "older" and "newer" media worlds may be intertwined in terms of theory as well as in terms of methodology (Debray, 2000; Jenkins, 2006; Leander, 2008; Zielinski, 2006).

Even if this scholarship has a "global" appeal, it is mostly produced in the so-called "global North" – with only a few exceptions such as the recent edited volume by Anastacia Kurylo and Tatyana Dumova (2016), exploring the similarities, distinctions, and specific characteristics of social media networks in diverse settings including not only the US and the UK but also Spain, Turkey, and China. *Global Youth in Digital Trajectories* aims to address this gap in the literature; it not only presents empirical case studies from areas as diverse as the Netherlands, Germany, Brazil, Greece, Russia, and India but also engages in dialogue with relevant local theories and research traditions that are not often referred to in Anglo-Saxon media studies such as cultural-historical theory (Kontopodis, Wulf & Fichtner,

2011; Vygotsky, 1934/1987), critical collaborative research (Fidalgo & Shimoura, 2007; Liberali-Coehlo, Damianovic, Guimares Ninin, Mateus & Guerra, 2016), mediology (Debray, 2000), and historical anthropology (Wulf, 2013).

The research presented in this volume was enabled by a Marie Curie grant for International Research Staff Exchange (IRSES) within the 7th European Community Framework Program (PIRSES-GA-2012–318909), which supported the partnership between a three-member European consortium (University of Crete, Free University Berlin, and University College London), the Moscow State University of Psychology and Education, the Jawaharlal Nehru University, and the Pontifical Catholic University of São Paulo. Resulting from long-term visiting scholarships, research stays, and repeated meetings among researchers from three continents, *Global Youth in Digital Trajectories* pursues therefore an adventurous research path: the volume explores emotions, imaginary productions, personal sense-making processes, and cross-media dialogues by youth in today's interactive, sensuous, smart, non-linear, multimodal, multimedia arrangements across diverse cultural settings and geographical areas while cutting across a wide range of case studies, disciplines, and approaches. It contributes to the relevant research in five respects as follows:

First of all, we demonstrate, with the help of several case studies on the experiences of youth on three continents, that the differentiation between an offline world and an *online* world is inapplicable to the lives of most young people. Being online is a fundamental dimension of the everyday lives of youths – particularly of those in urban settings. The special character of the online world, that some research accentuates, no longer correlates with the experience of youths today. Doing things online and offline is merely a matter of swiftly switching between the different modalities of the everyday life. Youth communities in this context are not only virtual communities in the widespread sense of virtual, i.e., made to appear to exist by software (cf. Rheingold, 2000) but as integral parts of the youth's living worlds (in German "Lebenswelt"). Youths rely on virtual communication while dealing with all possible everyday offline and online tasks. This communication enables them to share feelings and thoughts, discuss questions and problems, and arrange meetings with each other – often developing new forms of social interaction (see Chapter 1). The interconnections between the online and the offline are part of the living worlds of youths and offer them speedy and straightforward communication. For many youths, the return to a world without nonstop communication is barely imaginable and indeed undesirable. Most youths want to be constantly reachable, in the same way that they want other youths to be immediately reachable. One's own availability and the availability of others as well as the requisite flexibility are sought-after qualities. Young people are, as some express it, constantly ready - so to say "pready" - for communication.

Secondly, our book examines which new anthropological and cultural-historical conditions and changes arise in connection with the widespread presence of digital media in the lives of the *networked teens* (cf. Beyes, Schipper & Leeker, 2016; boyd, 2014). These contemporary changes are as fundamental as the development of script in ancient times, which led to far-reaching transformations in the human

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mental structure and society. In Plato's dialogues, where philosophizing still takes place in terms of oral speech, the transition from the spoken word to the written text is indicated. The emergence of script resulted in new forms of rational and argumentative speech (Gebauer & Wulf, 1995; Havelock, 1985; Ong, 2002). In this context, repetition, which was still of central importance to the aesthetic layout of the Homeric epics, became rather superfluous for the purpose of clearly unfolding of a thread of thoughts. Of similarly incisive effect is the discovery and dispersion of the press two thousand years later (Giesecke, 1998). In our multicultural study, we carve out a row of similarly drastic changes that can be reconstructed from the statements of the young people and our observations, which provide hints as to how far reaching these changes are.

The virtual communication among young people is multimodal as Carey Jewitt, Jeff Bezemer and Kay O'Halloran (2016) have also recently argued. Our case studies demonstrate through the analysis of interviews, focus-group discussions, and digital productions by young people as well as by means of participant observation, that images, script, sound, and spoken language assume new ties nowadays that were hitherto impossible. These have repercussions on the visual, written, and oral youth culture. Images – including the whole spectrum from selfies to screenshots - are becoming a fundamental means of communication between young people. Ever more frequently, youths resort to images as to communicate their feelings, hopes, fears, dreams, fantasies, and concerns (see Chapter 2). They become digital makers, that is to say youths who are productive in the sense of locating, filtering, and/or editing pictures, and who at the same time use their own productions thereby undermining the difference between producer and consumer (Potter, 2012). By means of pictures, iconic information that can only partly be expressed through language is communicated while certain sensibilities and competences are developed among youths – and others may be vanished as Norval Baitello warns in the last section of the volume. As pictures become part of the youth imaginary, traditional differences between *subject* and *object* shift, or even cease to exist (see Chapters 1 and 3).

Thirdly, our research reveals not only that digital technologies have become a steadfast part of the lives of youths, but also that herein lies significant potential for their upbringing and education. Without adopting too quickly an either cyberutopian or cyber-critical position, in two case studies, our research demonstrates the pedagogic potential of digital media to achieve inclusive and quality education for all (Chapters 4 and 8; cf. also United Nations, 2015). The youths of our research participate with their *extended bodies* in virtual, interactive, sensuous, smart, multimodal arrangements. With the help of digital operations, they attain new forms of expression and modes of belonging and make positive social experiences, thus redefining what may be understood as "inclusion/exclusion", "disability", or "learning difficulties". They are thereby recognized and valued. As the case studies reveal, digital technologies facilitate dealing with new learning tools, which in turn fosters not only the development of new skills but also the development of new psychological functions (Vygotsky, 1934/1987). Employed in combination with other forms and means of education, digital technologies – as

our school study in Brazil (Chapter 8) demonstrates – fascinate many students. They can support processes of decentralization of pedagogic action and creativity overcoming the restraints of *banking education* (Freire, 1970). They can also contribute to the development of various forms of literacy and therefore to human development – especially when the established ways of formal teaching and learning are extended to embrace globally emerging mobile, smart and sensuous technologies, online gaming cultures, and multimodal designs (cf. Beavis & O'Mara, 2016; Bezemer & Kress, 2015; Marsh, 2015).

Fourthly, Global Youth in Digital Trajectories displays the great political potential of digital culture. Digital culture enables the formation and negotiation of political views, insights, knowledge, and beliefs in emerging virtual public spaces. By analyzing the digital productions and virtual communication of young people, we obtain for example insights into contexts and situations of social crises, such as in Greece, where youth's hopes for the future have been crushed, and a young precariat is emerging (Chapter 5). Here youths try, through the production of digital videos and films, to bring to expression the political, economic, social, and emotional turmoil they live in. In further case studies, we demonstrate how views and opinions circulate between YouTube, Facebook, and traditional media such as TV or newspapers with regard to corruption, gender-related violence, and beauty ideals (Chapters 6 and 7). Our research explores how virtual communication processes, multimodal representations, and interpretations of the political situation develop and are mutually intensified in the virtual public sphere. A bottom-up process of political participation emerges, through which the views of many youths are expressed, sometimes in agreement with and other times in opposition to mainstream media expanding the existing forms of political participation (cf. Cammaerts, Bruter, Banaji, Harrison & Anstead, 2015). By way of commentaries disseminated via virtual networks, youth engagement with micro- and macro-political problems is strengthened while certain emotions are shared and intensified through mimetic practices – a process that entails risks as well as possibilities (cf. Hüppauf & Wulf, 2009).

Fifthly, our research delivers a multidimensional contribution to the debate on digital and virtual research methods (Hine, 2013; Jewitt, Domingo, Flewitt, Price & Sakr, 2017). The methods developed and presented in the edited volume are manifold and complementary. In addition to (offline) interviews and focusgroup discussions, which explored the youth experience from a first-person perspective, Chapter 3 for example, introduces *technography* – a methodology that extends ethnography by documenting and interpreting the interconnectedness between players and avatars in complex socio-technical constellations. Chapters 2, 5, and 6 introduce innovative methods (multimodal analysis, sequential analysis, etc.) that explore Facebook and YouTube posts, user profiles, hits, likes, and comments and their interconnections. In turn, Chapter 7 evaluates inter-channel and cross-media differences by mapping the number and frequency of daily references to certain news items and their reception. Whilst the internet is a widespread medium that more and more young people around the globe have a share of, our volume explores by means of innovative case studies the cultural diversity and

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multiplicity of digital media. Thereby we learn a lot about the challenges and problems that young people face in diverse socio-cultural settings, whilst simultaneously exploring the globally hybrid and emerging forms of youth life.

Case studies and organization of chapters

In line with the above, the first chapter of our book, "Digital Identity Building: A Dialogue with Berlin Technology and Computer Science Students" by Nika Daryan and Christoph Wulf, explores the most recent effects of technological transformation on youth identity formation. Envisaging present-day technology and computer science students as tomorrow's average youth, the authors, by way of dialogue with such students, explore how youth identity formation develops on the basis of constant Wi-Fi access. The analysis reveals that young people can have no participation in their peer group, college settings, and other everyday life undertakings without Wi-Fi access. Digital media are interwoven with daily life, and in this sense, all identity is "digital identity", i.e., there is no separate *online* identity developed in addition to an *offline* one. Consequently, there is a shift with regard to the efficiency of traditional pedagogical institutions, and a need to rethink pedagogical theory and practice.

A central question that poses itself in this frame is what counts as text – not as seen from the perspectives of existing theories or school curricula, but as seen from the perspectives of the young. The second chapter of the volume, "Young People, Facebook, and Pedagogy: Recognizing Contemporary Forms of Multimodal Text Making" by Jeff Bezemer and Gunther Kress, explores how young people draw on several modes of representation in their communication. In many of their texts, writing is not the central medium for making meaning. Departing from a case study of a 12-year-old boy's text making on Facebook in the Netherlands, the authors propose a social semiotic framework to account for the recent changes in text making and outline what a "pedagogy of multimodal text making" could be.

How various modes of representation merge into each other is also explored in the third chapter of the volume: "Playing Sports with Nintendo Wii in Berlin: Technography, Interactivity, and Imagination" by Nino Ferrin and Michalis Kontopodis. The authors explore media sporting activities with the game console "Nintendo Wii", in which games such as boxing or bowling are handled by haptic corporal movements. The links between the *off-screen* body movements and the image of the body *on-screen* are explored through a detailed *technography*. The analysis of the empirical research examples opens into a broader discussion about the notions of self-image and imagination with regard to sensuous media.

Turning the reader's attention to another media practice, that of digital film-making, the fourth chapter of the volume, "Digital Filmmaking as a Means for the Development of Reflection: A Case Study of a Disabled University Student in Moscow" by Olga Rubtsova and Natalya Ulanova, explores the micro-dynamics of the development of reflection in the case of a young student with cerebral palsy. The research team accompanies the student during the last semester of his studies, which is devoted to shooting a short digital movie as a graduation project.

Following a cultural-historical approach, the chapter investigates how digital filmmaking was turned into a meaningful activity of creating new cultural signs and meanings for this student, on-screen as well as off-screen. It also explores how this activity unfolded as an essential part of a broader attempt to cope with his emotionally intense and challenging everyday life.

In turn, Manolis Dafermos, Sofia Triliva, and Christos Varvantakis in the fifth chapter of the volume, "Youth Tubing the Greek Crisis: A Cultural-Historical Perspective", shed light on the processes and the outcomes of psychological development in the case of young people producing and circulating YouTube films and relevant posts about the current financial and socio-political crisis taking place in Greece. The authors introduce an innovative method for the analysis of the videos, user profiles, hits, likes and dislikes, and their related descriptions and commentaries. They contextualize this within the broader everyday life settings of the youngsters. The analysis explores how producing and circulating YouTube films offers the young people the means to re-appropriate and combine cultural signs and meanings from a wide range of virtual symbolic resources, and in doing so deal with the crisis. The young people express their fears and hopes, whilst intervening and participating in society at a moment when social integration is breaking down.

The sixth chapter, "Dove YouTube Campaign 'The Pressure On Young Girls and Women to Fit an Artificial Body Ideal': A Sequential Analysis" by Alexios Brailas, Giorgos Alexias, and Konstantinos Koskinas, explores the discussion on a YouTube video by Dove. By counting two-comment sequences, reporting frequencies, and computing probabilities for all coded comments, meaningful patterns of user interaction were recognized. The findings indicate that insulting comments were more likely to occur following a disagreement regarding the prevailing opinion. The chapter concludes with a broader discussion on the significance and limitations of sequential analysis in exploring virtual discussion spaces.

Virtual discussion platforms, online forums, and micro-blogging apps provide young people with enriched possibilities for decentralized and distributed production and peer-to-peer circulation of advanced audio-visual designs. However, as becomes evident in the chapters above, this production is linked to and entails images, ideas, and symbols circulated through older audio-visual media such as TV channels or mainstream cinema. In this frame, the following chapter, "Youth, Facebook, and Mediated Protest in India: A Cross-Media Analysis" by Supriya Chotani, focuses on two recent protest campaigns, namely the India Against Corruption campaign (2011) and the Anti Rape protests (2012). The author explores whether the television news media broadcasting had an influence on which issues of protest became dominant on Facebook. The data indeed reveals that the social movements and campaigns given the most coverage by the television news media had a correspondingly high proportion of social media response. On the basis of this data, the author discusses the emergent mediation between older and newer media and its implications with regard to the political engagement of young people in India.

While certain interfaces, web-designs, and media privilege particular forms of communication, memory, and imagination but constrain others (cf. Kress, 2010;

New London Group, 1996), Global Youth in Digital Trajectories explores how collaborative, participatory, and sustainable futures can be imagined and implemented by creatively engaging with the interfaces and designs that the information society offers (Chau, 2010; de Block & Sefton-Green, 2004; Fuchs & Sandoval, 2014). The eighth chapter of our book, "Enhancing Multimedia Use in State Secondary Schools in São Paulo: A Critical Collaborative Perspective" by Fernanda Liberali, Maria Cecília Magalhães, Maria Cristina Meaney, Camila Santiago, Maurício Canuto, Feliciana Amaral, Bruna Cababe, and Jéssica Aline Almeida Dos Santos explores this question in dialogue with teachers and students of state/ public secondary schools in Brazil's major city. Through a detailed analysis of video-recorded participatory workshops with teachers and pupils, the authors oppose top-down and curricula-based approaches to employing technology in the school. They suggest that argumentation – which may entail opposition and clashes of ideas as well as joint decisions – is the foundation for the innovative and sustainable introduction of novel technologies in educational settings, especially when taking under consideration the educational and broader socioeconomic discrepancies of contemporary Brazil (Kontopodis, Magalhães & Coracini, 2016).

The edited volume comes to an end with Norval Baitello Jun.'s "Instead of an Epilogue", a critical reflection on contemporary *iconophagy* and its implications with regard to global youth and education. According to the author, iconophagy refers both to the operation of constantly "feeding" the flow of images, and to the process in which the images "feed" human lives, time, space, and bodies. Iconophagy becomes the regulating principle of the traffic between humans and images today – a vicious circle of quick consumption, superficial loss, and rapid replacement by new images. Taking critical distance from approaches that claim that pedagogical interaction is no longer needed in the global digital era, Norval Baitello argues in this context that a pedagogy, which encourages deeper engagement with the historicity of the senses, is indispensable for contemporary youth.

Even if media practices have received much attention in the last decade across a wide range of fields, their dynamic development as well as their globalized presence pose challenging questions that cannot be easily addressed through the lenses of a single theory or approach. The present volume invites the interested reader to accompany contemporary youth in their digital trajectories and virtual adventures; we hope that the broad spectrum of investigated fields in combination with the innovative theoretical and methodological frameworks introduced by renowned and engaged scholars from the UK, Germany, Greece, Brazil, Russia, and India add depth and breadth to current discussions on the involvement of digital technologies in youth everyday life practices, socialization, and education.

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